

ANL-4120MG

122 GHz Smart Level Radar Transmitters

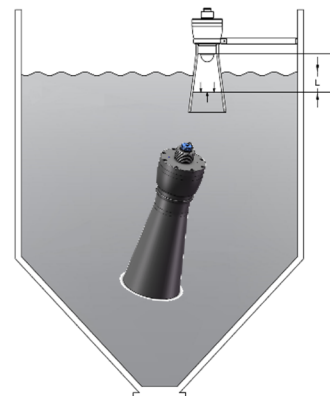
Features

- Smart features designed to make life easy
- Communicate via Bluetooth wireless technology
- Advanced diagnostics and Smart Meter Verification
- NAMUR type tested and IP68 / CE / Exia
- Versatile FMCW radar for application flexibility
- Industrial design concept, the appearance of the product fits in natural environment



Applications

- Non-contacting radar technology is ideal for a wide range of applications as it is maintenance-free, has a top-down installation that reduces the risk of leakages, and is unaffected by process conditions such as density, viscosity, temperature, pressure.
- ANL-4120MG transmitters are used for non-contact level measurement of liquids and bulk solids, measuring all kinds of liquids, even under high pressure and extreme temperatures, in solvents as well as aggressive liquids, they are also suitable for use in applications with stringent hygiene requirements.
- AiW-4120MG can also measure the lightest to the heaviest of bulk solids with absolute reliability, even in the presence of dust and noise, without being affected by buildup or condensation. Suitable for liquids and bulk solids in simple process conditions.
- ANL-4120MG uses Frequency Modulated Continuous Wave (FMCW) technology and smart algorithms to maximize measurement accuracy and reliability, even in small tanks and challenging fast-filling vessels.
- ANL-4120MG with Flood Protection Cover, This can be critical with media that are highly corrosive, toxic or otherwise dangerous in a spill. The ability to read to the very top of the vessel is often called Overfill Capability.



Product Form



Specifications

Product No	AiW/ANL-4120MG-R	AiW/ANL-4120MG-K	AiW/ANL-4120MG-A	AiW/ANL-4120MG-H
Installation method	Threaded with Overfill proof(option)			
Appearance Picture				
Parameter				
Measuring Frequency	122 to 123GHz Dynamic FM Sweep Bandwidth 1GHz (122GHz~123GHz: 1GHz) or 120 to 123GHz Dynamic FM Sweep Bandwidth 3GHz (120GHz~123GHz: 3GHz)/option (The adjustment FM range can be customized according to the ISM requirements of the customer's region)			
Instrument Range	(10/18/30m)		(10/18/40m)	
Dead Band	<200mm(10m/18m range)		<300mm	
Meas. Principle	FMCW Radar System			
Meas. Resolution	0.05m (Physical Resolution C/2B = 0.05m)			
Meas. Accuracy	±1mm(<10m range)/±2mm(18m range)/±4mm(30m range)			
Temperature Coefficient	±1ppm/°C			
Antenna Sensor Material	Polyoxymethylene (POM) / (PTFE Customized Option) {The antenna is integrated with the housing}			
Beam Angle(α)	POM: 6°/ Gain 29dB; PTFE: <6°/ Gain 31dB			
Output	RS-485	IO-Link	4-20mA	mA/HART 7
Power Supply	9-38 V DC		16-40 V DC	
Process Connection	G1-1/2 or 1-1/2 NPT(Customized Option)			
Process Temperature	-40 ... +100 °C			
Ambient Temperature	-40 ... +85 °C			
Operating Pressure	POM: -100 to +500 KPa PTFE: -100 to +300 Kpa			
Display/Adjustment	Chinasimba Software: PCManager V1.x, MobileManager V1.x (v1.0.6(IOS) / v1.0.12(Android))			
Wireless communication	Bluetooth			
Bluetooth Standard	Bluetooth 4.0			
Bluetooth Range	20m			
Output & Protocol	ModBus / SDI-12(Customized Option)		4-20mA	HART7 (Downward Compatible)
Fault Output	**		22mA/4mA/20.5mA (option)	
Live Display	With Display(160X80 LCD/4 Keys button) / Mobile / iPad / PC			
Housing Material	POM material (PTFE Customized Option)			
No.of Cable Entries	1 PVC Insulated cable (Aviation connectors)			
Explosion-proof grade	***		Exia	
Ingress Protection / CE	IP67 / IP68 / CE			
Package Dimensions	267mm x 97mm x 97mm			
Benefit	Maintenance-free and durable. Measurement not affected by build-up or condensation. Measures lightest to the heaviest of bulk solids with absolute reliability. Suitable for solvents as well as aggressive liquids. User friendly adjustments (via Bluetooth) save installation time. Sensor active LED indication. Ergonomic and environment friendly design. Flexibility in output options. Suitable for hydrological applications (Lakes, Rivers, Reservoirs). The versatile design enables fit for purpose solutions and flexibility in use.			
Application	Liquid, Solid			

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ANL-4120MG Products Dimensions in millimeters

REV	DESCRIPTION	DATE	DWN	APVD
A	1st edition release.	2023-03-03	Robin	Phoenix

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PROJECT/PRODUCT		ANL-6279	
REF SCH	N/A	PART NO.	6279-318-000
REF PCB	N/A	DRG NO.	6279-318-000
FILE	6279-318-000RA	SHEET	1 OF 1
		SIZE	A3
		REV	A

TITLE: ANL-4120MG 安装规格图

MATERIAL: 黑色POM
 QTY: 1
 DIMENSIONS: ITM
 SCALE: 1:1

ANL/Aiw-4120MG Ordering Codes

Ordering Codes ANL-4120MG Liquid version 订货编码


AIW-4120MG	1	2	3	4	5	6	NOTE
	R						RS485 WITH MODBUS
	D						SDI-12 CUSTOMIZED
	K						IO-LINK
	A						4-20mA ONLY
	H						4-20mA / HART7
		G					UNDER THREADED CONNECTION G1-1/2
		N					UNDER THREADED CONNECTION 1-1/2 NPT
			R				UPPER REED CONNECTION ϕ 34MMX2
			T				UPPER THREADED CONNECTION G1
				10M			RANGE 10M
				18M			RANGE 18M
				30M			RANGE 30M
				40M			RANGE 40M FOR HART VERSION ONLY
				S		HOUSING MATERIAL POM	
				P		HOUSING MATERIAL PTFE	
					F	WITH OVERFILL FUNCTION	

Sample :

AIW-4120MG-A-G-R-10M-S

LIQUID VERSION, 4-20mA, G1-1/2, UP REED, RANGE 10M, POM HOUSING

Ordering Codes ANL-4120MG Solid version 订货编码

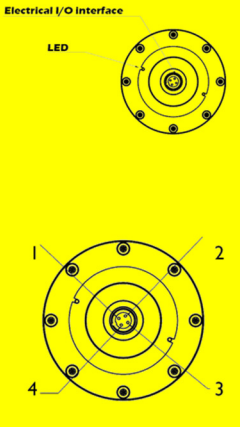
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				P		HOUSING MATERIAL PTFE	
						NA	

Sample :

ANL-4120MG-A-G-R-10M-S

SOLID VERSION, 4-20mA, G1-1/2, UP REED, RANGE 10M, POM HOUSING

Wiring Connection 接线图

PORT		PIN	Color	Signal	
	mA only mA HART (2-Wire)	1	Red	V+	24V
		2	Blue	NA	
		3	Yellow	V-	0V
		4	Green	NA	
	mA HART (4-Wire)	1	Red	V+	24V
		2	Blue	mA+	+ Active 4-20 mA analog output
		3	Yellow	V-	0V
		4	Green	mA-	- Active 4-20 mA analog output
	RS485	1	Red	V+	24V
		2	Blue	485-A	RS485+ communication line
		3	Yellow	0V	0V
		4	Green	485-B	RS485- communication line
IO-LINK	1	Red	V+	24V	
	2	Blue	OUT2	Digital output	
	3	Yellow	V-	0V	
	4	Green	OUT1/IO-LINK	Digital output or IO-Link mode	

For more information contact your regional sales representative.

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